



DoD DIRECTIVE 4650.05

POSITIONING, NAVIGATION, AND TIMING (PNT)

Originating Component: Office of the Chief Information Officer of the Department of Defense

Effective: June 9, 2016

Change 1 Effective: January 24, 2019

Releasability: Cleared for public release. Available on the DoD Issuances Website at <http://www.dtic.mil/whs/directives>.

Reissues and Cancels: DoD Directive 4650.05, "Positioning, Navigation, and Timing (PNT)," February 19, 2008

Approved by: Robert O. Work, Deputy Secretary of Defense

Change 1 Approved by: David L. Norquist, Performing the Duties of the Deputy Secretary of Defense

Purpose: This issuance:

- Establishes policy and assigns responsibilities for the DoD PNT enterprise in accordance with Section 2281 of Title 10, United States Code and National Security Presidential Directive 39.
- Expands and clarifies the authority and responsibility assigned to the DoD Chief Information Officer in DoD Directive 5144.02 by designating that official as the Principal Staff Assistant for PNT policy and for development and coordination of DoD positions on all aspects of PNT for communication to external organizations.
- Establishes the Council on Oversight of the DoD PNT Enterprise (referred to in this issuance as the "PNT Oversight Council") to provide oversight of the DoD portion of the PNT Enterprise of the United States, in coordination with various DoD Components and organizations that provide or support the functions of the PNT Enterprise.

TABLE OF CONTENTS

SECTION 1: GENERAL ISSUANCE INFORMATION	3
1.1. Applicability.	3
1.2. Policy.	3
1.3. Summary of Change 1.	3
SECTION 2: RESPONSIBILITIES	4
2.1. DoD Chief Information Officer.	4
2.2. Under Secretary of Defense for Acquisition and Sustainment.	4
2.3. Under Secretary of Defense for Research and Engineering.	4
2.4. Director of Operational Test and Evaluation.	5
2.5. Under Secretary of Defense (Comptroller)/DoD Chief Financial Officer, Department of Defense.	5
2.6. Under Secretary of Defense for Intelligence.	5
2.7. Director, National Security Agency/Chief, Central Security Service.....	5
2.8. Director, National Geospatial-Intelligence Agency.....	5
2.9. Director, National Reconnaissance Office.....	5
2.10. Under Secretary of Defense for Policy.	6
2.11. Director of Cost Assessment and Program Evaluation.....	6
2.12. Secretaries of the Military Departments.	6
2.13. Vice Chairman of the Joint Chiefs of Staff.....	6
2.14. Commander, United States Strategic Command.	7
2.15. Commander, United States Northern Command	7
2.16. Commander, United States Cyber Command.....	7
SECTION 3: PNT OVERSIGHT COUNCIL	8
3.1. PNT Oversight Council Composition.....	8
3.2. PNT Oversight Council Function.	8
GLOSSARY	11
REFERENCES	12
FIGURES	
Figure 1. DoD PNT Enterprise Oversight Governance Process	10

SECTION 1: GENERAL ISSUANCE INFORMATION

1.1. APPLICABILITY. This issuance applies to OSD, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the DoD (referred to collectively in this issuance as the “DoD Components”).

1.2. POLICY. The DoD PNT Enterprise:

a. Serves three principal functions for the United States.

(1) Provide and protect the effective use of military Global Positioning System and other PNT services by U.S. and Allied forces anywhere in the world.

(2) Prevent the effective use of PNT services by adversaries in areas of military operations.

(3) Preserve civil Global Positioning System PNT services to non-combatants outside areas of military operations.

b. Provides PNT information essential to the execution and command and control of military missions and to the efficient operation of information networks necessary for continuous situational awareness by Combatant Commanders and other senior decision makers.

c. Requires cooperation with other federal departments and agencies in the management and operation of dual-use PNT systems.

d. Requires participation in domestic civil and international government and civil PNT forums in which coordinated U.S. Government positions must support DoD objectives.

1.3. SUMMARY OF CHANGE 1. The changes to this issuance are a result of the reorganization of the Under Secretary of Defense for Acquisition, Technology, and Logistics into the Under Secretary of Defense for Acquisition and Sustainment and the Under Secretary of Defense for Research and Engineering, and:

a. Updates the respective roles for the PNT Oversight Council.

b. Reflects the Under Secretary of Defense for Intelligence as a voting member of the PNT Oversight Council.

SECTION 2: RESPONSIBILITIES

2.1. DOD CHIEF INFORMATION OFFICER. The DoD Chief Information Officer:

- a. Implements this directive, including issuing necessary policy, procedures, and guidance.
- b. Serves as Principal Staff Assistant for PNT policy and for development and coordination of DoD positions on all aspects of PNT policy for communication to external organizations.
- c. Establishes and chairs a DoD PNT Executive Management Board (EMB) and working groups to oversee the governance process in support of the PNT Oversight Council.
- d. Establishes a PNT Oversight Council Secretariat to provide organizational and staffing support for meetings, issue Council guidance and decisions, and lead preparation and staff coordination of reports required for submission by the Council.
- e. As a voting member of the PNT Oversight Council, identifies and represents to the PNT Oversight Council the PNT policy requirements to be satisfied by the DoD when implementing the DoD PNT Enterprise.
- f. Ensures that systems supporting DoD PNT functions are in compliance with DoD navigation warfare requirements in accordance with DoD Instruction 4650.08.

2.2. UNDER SECRETARY OF DEFENSE FOR ACQUISITION AND SUSTAINMENT.

The Under Secretary of Defense for Acquisition and Sustainment:

- a. Serves as a co-chair of the PNT Oversight Council, and is a voting member.
- b. Oversees acquisition of DoD systems using or providing PNT capabilities and related performance standards for DoD PNT systems. Confirms that approved PNT policies are implemented in acquisition activities subject to Under Secretary of Defense for Acquisition and Sustainment oversight.

2.3. UNDER SECRETARY OF DEFENSE FOR RESEARCH AND ENGINEERING. The

Under Secretary for Research and Engineering:

- a. Is a voting member of the PNT Oversight Council.
- b. Provides oversight and guidance for DoD investment in PNT research and development and emerging PNT capabilities.
- c. Informs and influences PNT program requirements based on the results of the knowledge acquired through technology forecasting, effective modeling and simulation, prototyping and experimentation.

d. Reviews and oversees PNT research, system engineering, and developmental test processes across the Services through oversight and management of PNT research and development activities among the Service laboratories, DoD research organizations, industry, and academia.

2.4. DIRECTOR OF OPERATIONAL TEST AND EVALUATION. As a non-voting member of the PNT Oversight Council, the Director, Operational Test and Evaluation:

a. Prescribes policies and procedures for the conduct of PNT-related operational test and evaluation and advises the Council on these matters.

b. Advises the Council on vulnerability identification, including cybersecurity vulnerabilities, and mitigation.

c. Advises the Council based on oversight of the GPS Enterprise and insight gained through operational tests and performance assessments.

2.5. UNDER SECRETARY OF DEFENSE (COMPTROLLER)/DOD CHIEF FINANCIAL OFFICER, DEPARTMENT OF DEFENSE. As a non-voting participant of the PNT Oversight Council, the Under Secretary of Defense (Comptroller)/Chief Financial Officer, Department of Defense provides subject-matter expertise at Council meetings and in developing Council products.

2.6. UNDER SECRETARY OF DEFENSE FOR INTELLIGENCE. As a voting member of the PNT Oversight Council, the Under Secretary of Defense for Intelligence provides subject-matter expertise at Council meetings and in developing Council products.

2.7. DIRECTOR, NATIONAL SECURITY AGENCY/CHIEF, CENTRAL SECURITY SERVICE. Under the authority, direction, and control of the Under Secretary of Defense for Intelligence, and as a voting member of the PNT Oversight Council, the Director, National Security Agency/Chief, Central Security Service, provides oversight and guidance on PNT-related operations and capability needs pertaining to cryptologic and precise timing matters.

2.8. DIRECTOR, NATIONAL GEOSPATIAL INTELLIGENCE AGENCY. Under the authority, direction, and control of the Under Secretary of Defense for Intelligence, as a non-voting participant of the PNT Oversight Council, the Director, National Geospatial-Intelligence Agency provides subject-matter expertise at Council meetings and in developing Council products.

2.9. DIRECTOR, NATIONAL RECONASSIANCE OFFICE. Under the authority, direction, and control of the Under Secretary of Defense for Intelligence, as a non-voting

participant of the PNT Oversight Council, the Director, National Reconnaissance Office provides subject-matter expertise at Council meetings and in developing Council products.

2.10. UNDER SECRETARY OF DEFENSE FOR POLICY. The Under Secretary of Defense for Policy:

a. As a voting member of the PNT Oversight Council, provides oversight and guidance on international matters pertaining to the DoD PNT Enterprise.

b. In coordination with DoD Chief Information Officer, develops national security and Defense policy and integrates space-based PNT policy and plans to achieve national security objectives.

c. In coordination with DoD Chief Information Officer, participates in space-based PNT matters involving the National Security Council, the Department of State, and other federal departments, agencies, and interagency groups with interests in and responsibilities for space-based PNT national security policy.

d. Coordinates with DoD Chief Information Officer on the development of DoD policy guiding the conduct of alliances and defense relationships with foreign governments, their military establishments, and international organizations; integrating and overseeing plans and programs undertaken with those alliances or foreign defense establishments relating to space-based PNT.

2.11. DIRECTOR OF COST ASSESSMENT AND PROGRAM EVALUATION. As a non-voting participant of the PNT Oversight Council, the Director of Cost Assessment and Program Evaluation provides subject-matter expertise at Council meetings and in developing Council products.

2.12. SECRETARIES OF THE MILITARY DEPARTMENTS. As ex officio members and voting members of the PNT Oversight Council, the Secretaries of the Military Departments provide oversight and guidance for service-related PNT operations and capability needs, and subject-matter expertise at Council meetings and in developing Council products.

2.13. VICE CHAIRMAN OF THE JOINT CHIEFS OF STAFF. The Vice Chairman of the Joint Chiefs of Staff:

a. Serves as a co-chair of the PNT Oversight Council, and is a voting member.

b. Identifies and represents to the PNT Oversight Council, PNT operational requirements to be satisfied by the DoD.

2.14. COMMANDER, UNITED STATES STRATEGIC COMMAND. The Commander, United States Strategic Command:

a. As a voting member of the PNT Oversight Council, provides oversight and guidance on joint space-based PNT-related operations and capability needs pertaining to the DoD PNT Enterprise.

b. Develops joint concepts of operations and tactics, techniques, and procedures for those PNT capabilities for which the Commander, U.S. Strategic Command, has responsibility.

c. Integrates and coordinates space-based PNT and Navigation Warfare operational capabilities across the DoD.

2.15. COMMANDER, UNITED STATES NORTHERN COMMAND As a voting member of the PNT Oversight Council, the Commander, United States Northern Command provides oversight and guidance on PNT-related operations and capability needs pertaining to U.S. homeland defense.

2.16. COMMANDER, UNITED STATES CYBER COMMAND. As a voting member of the PNT Oversight Council, the Commander, United States Cyber Command, provides oversight and guidance on PNT-related operations and capability needs pertaining to the DoD cyber infrastructure.

SECTION 3: PNT OVERSIGHT COUNCIL

3.1. PNT OVERSIGHT COUNCIL COMPOSITION The PNT Oversight Council is composed of the voting members and non-voting participants identified in Section 2.

a. Voting Members.

- (1) Secretaries of the Military Departments.
- (2) Vice Chairman of the Joint Chiefs of Staff, Co-chair.
- (3) Under Secretary of Defense for Acquisition and Sustainment, Co-chair.
- (4) Under Secretary of Defense for Research and Engineering.
- (5) Under Secretary of Defense for Policy.
- (6) DoD Chief Information Officer.
- (7) Under Secretary of Defense for Intelligence.
- (8) Director, National Security Agency/Chief, Central Security Service.
- (9) Commander, United States Strategic Command.
- (10) Commander, United States Northern Command.
- (11) Commander, United States Cyber Command.

b. Non-voting Participants.

- (1) Under Secretary of Defense (Comptroller)/Chief Financial Officer, Department of Defense.
- (2) Director of Operational Test and Evaluation.
- (3) Director, National Geospatial-Intelligence Agency.
- (4) Director, National Reconnaissance Office.
- (5) Director of Cost Assessment and Program Evaluation.

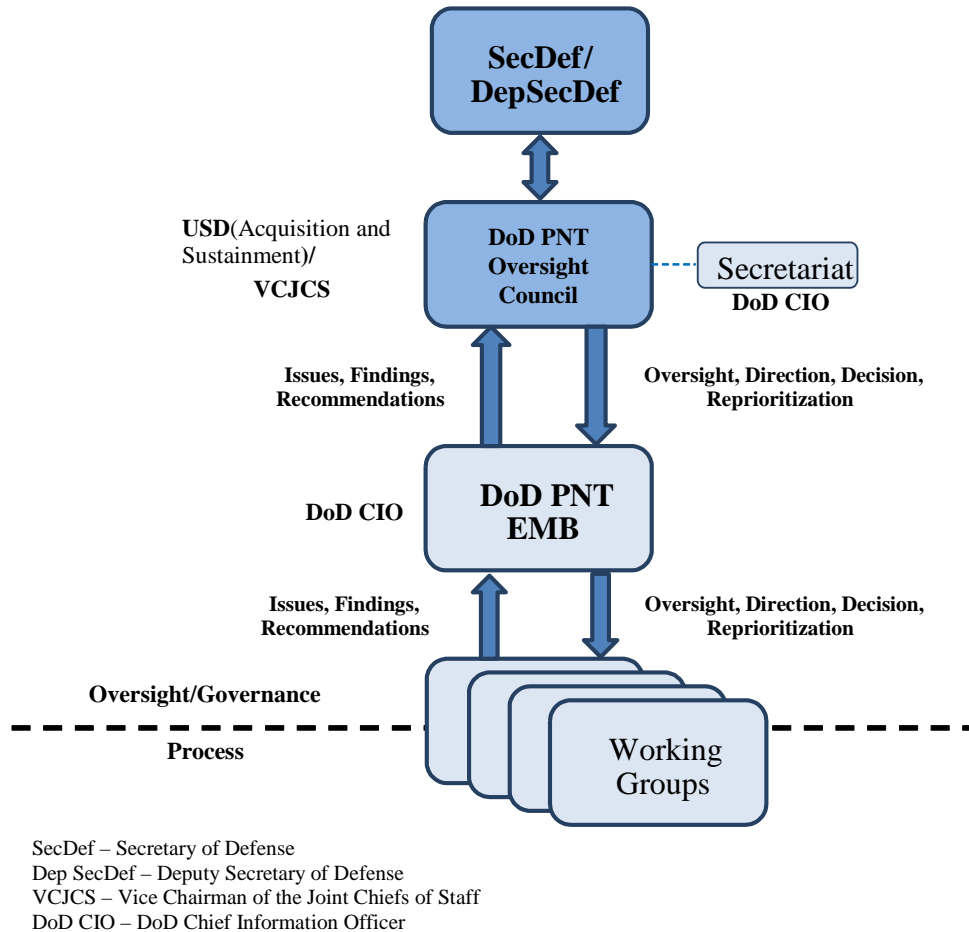
3.2. PNT OVERSIGHT COUNCIL FUNCTION. The PNT Oversight Council:

a. Serves as the principal unified and integrated DoD governance body that ensures the DoD PNT Enterprise functions meet national objectives, consistent with national policy and guidance, and that the mutually supporting systems, standards, and specifications continue to evolve to

address emerging threats. Specific functions of the PNT Oversight Council include, but are not limited to:

- (1) Oversight of the DoD PNT Enterprise, including PNT services provided to civil, commercial, scientific, and international users.
 - (2) Oversight of performance assessments (including interoperability).
 - (3) Vulnerability identification and mitigation.
 - (4) Architecture development.
 - (5) Resource prioritization.
 - (6) Other responsibilities that the Secretary or Deputy Secretary of Defense specifies.
- b. Supports the planning, programming, budgeting, and execution process by prioritizing PNT issues and recommending resourcing options. See Figure 1 for the governance structure through which issues, findings, and recommendations will be vetted to the PNT Oversight Council.

Figure 1. DoD PNT Enterprise Oversight Governance Process



c. Is supported by the DoD PNT EMB, a functional governance committee, consistent with governance committees established by DoD Directive 5105.79. The PNT EMB informs the PNT Oversight Council of issues that need principal-level decisions.

d. Tasks the PNT EMB to work specific problems and issues. As necessary, PNT Council decisions and tasks will be coordinated by working groups comprised of member organization representatives and implemented by subordinate member organizations (e.g., program and project offices).

e. Decides by consensus of the voting members. If consensus cannot be reached, the PNT Oversight Council co-chairs will make the final determination. Dissenting positions will be included in the record of decisions for the Council.

GLOSSARY

EMB	Executive Management Board
PNT	positioning, navigation, and timing

REFERENCES

- DoD Directive 5105.79, “DoD Senior Governance Councils,” May 19, 2008
- DoD Directive 5144.02, “DoD Chief Information Officer (DoD CIO),” November 21, 2014, as amended
- DoD Instruction 4650.08, “Positioning, Navigation, and Timing (PNT) and Navigation Warfare (Navwar),” December 27, 2018
- National Security Presidential Directive 39, “U.S. Space-Based Positioning, Navigation, and Timing Policy,” December 15, 2004
- United States Code, Title 10, Section 2281